What we claim:

1. A method for treating a human suffering from inoperable tumors wherein biodegradable microspheres releasing an anticancer agent are administered by stereotactic injection directly into the tumor, into the peritumoral area or at the same time into the tumor and the peritumoral area.

2. The method of claim 1 wherein the biodegradable microspheres are coated with a polymer which delays the release of the anticancer agent and maintains, in the parenchymal space, a therapeutically effective concentration for a period of time of at least three weeks, preferably of at least four weeks.

3. The method of claim 1, wherein the inoperable tumors are deep tumors or tumors which are located into functional zones.

4. The method of claim 2, wherein inoperable tumors are brain tumors such as glioblastomas, tumors of otorhinolaryngologic sphere, rectal tumors, osseous, hepatic or brain metastasis, or non malignant cystic tumors like craniopharyngiomas.

5. Method according to claim 3, wherein the tumor is a brain tumor.

6. Method according to claim 4, wherein the brain tumor is one of glioblastomas, metastasis and non malignant cystic tumors like craniopharyngiomas.

7. Method according to claim 1, wherein the anticancer agent consisting of a radiosensitizing anticancer compound or a mixture of anticancer compounds containing at least one radiosensitizing anticancer compound, said anticancer compound(s) being chosen, in the group comprising 5-fluorouracil (5-FU), platinum

agents, such as carboplatin and cisplatin, taxanes, such as docetaxel and paclitaxel.

8. Method according to claim 6, wherein the anticancer agent is 5-fluorouracil.

9. Method according to claim 1, wherein a neuroprotective compound is added.

10. Method according to claim 1, wherein the microspheres are suspended in a sterile solution containing between 1 and 1.5% by weight/volume of a viscosity modifier, between 0.5 and 1.5% of a surfactant, between 3.5 and 4.5% of an isotonicity agent.

11. Method according to claim 9, wherein the sterile solution contains 1.25% weight/volume of the viscosity modifier.

12. Method according to claim 9, wherein the surfactant is between 0.5 and 1.5%.

13. Method according to claim 9, wherein the isotonicity agent is between 3.5 and 4.5%.

14. Method according to claim 9, wherein the viscosity modifier is sodium carboxymethylcellulose, the surfactant is Polysorbate® and the isotonicity agent is mannitol.

15. Method of treatment according to claim 9, wherein the suspension contains 3 ml of the sterile solution and 700 to 800 mg of biodegradable microspheres.

16. Method of treatment according to claim 7, wherein the amount of 5-FU is of between 50 and 200 mg.

17. Method according to claim 1, wherein the microspheres are administered by one or more repeated stereotactic injections.

18. Method according to claim 1, wherein the administration of microspheres is followed by a radiotherapy.

19. Method according to claim 1, wherein the microspheres are prepared by a method consisting in preparing an organic phase in which the anticancer agent and the polymer are dispersed in an organic solvent, emulsifying the organic phase and an aqueous phase, extracting the organic solvent by adding water and finally filtering the suspension of microspheres thus obtained.